

ABSTRACT

A transmission apparatus for generating a complex four-phase pseudo-random sequence having I and Q portions includes a shift register and an accumulator. The shift register has a plurality of positions. The accumulator has a first input for receiving an output from the shift register and a second input for receiving a predetermined value. The accumulator combines the data received via the first and second inputs and outputs the combined data to the shift register. Bits from a first predetermined position within the shift register are used to generate the I portion of the sequence and bits from a second predetermined position within the shift register are used to generate the Q portion of the sequence.